

CLAIMS

1) A femoral stem (1;100) for hip (A) prosthesis (R) comprising:

- 5 - a main body (2) with mainly longitudinal development and with a generally wedge shape, adapted to be inserted into the femoral canal (N) present in the body (C) of the femur (F);
- a central body (3; 101) of a generally trapezoidal shape integral with said main body (2), adapted to be located in the proximal zone (Z) of said femur (F);
- 10 - an appendix (4) projecting from said central body (3; 101), provided with a terminal pin (5) adapted to receive a spherical head (S) of joint in the cotyle (I) belonging to said prosthesis (R) and inserted in the acetabular zone (E) of the pelvic bone (O),

and it is **characterized in that** said main body (2) and said central body (3; 15 101) are defined by a shaped surface (6) on one side and a mixtilinear surface (7; 102) on the opposite side from which a shaped notch (8) is starting involving said central body (3; 101) and extending up to the proximity of said projecting appendix (4).

2) The femoral stem (1; 100) according to claim 1)
20 **characterized in that** said mixtilinear surface (7; 102) consists of a first generally straight surface (7a; 102a) belonging to said central body (3; 101) and a second generally straight surface (7b) belonging to said main body (2), connected to said first surface (7a; 102a) through a generally convex radiused zone (7c) from which said shaped notch (8) is starting.

25 3) The femoral stem (1; 100) according to claim 2) **characterized in that** the extension of said second surface (7b) defines with said first surface (7a; 102a) an acute angle (α).

4) The femoral stem (1; 100) according to claim 2)
30 **characterized in that** said shaped notch (8) divides said central body (3; 101) into a first zone (3a; 101a) arranged generally facing the greater trochanter (G) of said femur (F) and second zone (3b; 101b) arranged generally facing the lesser trochanter (P) of said femur (F), said first zone (3a; 101a) and said second zone (3b; 101b) being connected to each other through a bridge (3c) comprised between said shaped notch (8) and the radiused surface (9)
35 between said projecting appendix (4) and said mixtilinear surface (7; 102).

5) The femoral stem (1; 100) according to claim 1) **characterized in that** said shaped notch (8) consists of a concave-convex continuous surface (8a) defining a profile (8') having generally the shape of a half slot.

5 6) The femoral stem (1; 100) according to claim 5) **characterized in that** said profile (8') consists of a first stretch (8b) connected to said mixtilinear surface (7; 102) with a generally constant cross section, and a second stretch (8c) extending until bellow said bridge (3c) with a widened cross section.

10 7) The femoral stem (100) according to claim 4) **characterized in that** said first zone (101a) of said central body (101) is externally provided with at least a longitudinal fin (103, 104) generally developed for the entire length (L_1) of said first zone (101a).

15 8) The femoral stem (100) according to claim 7) **characterized in that** said fin (103, 104) is arranged along a longitudinal axis (Y, Y') generally parallel to said first surface (102a) of said mixtilinear surface (102).

20 9) The femoral stem (100) according to claim 7) **characterized in that** said fin (103, 104) has a cross sectional conical profile (103', 104').

 10) The femoral stem (1; 100) according to claim 1) **characterized in that** said shaped surface (6) has a concave-convex cross sectional profile.

25

30

35